

# LipoControl's Higher Precision Lipolysis Results in Safer Procedures



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Before Tx



After LipoControl Tx

Photos courtesy of Carmen Kavali, M.D.



Before Tx



After LipoControl Tx

Photos courtesy of Neil Sadick, M.D.

## By Ilya Petrou, M.D., Contributing Editor

Laser-assisted lipolysis (LAL) is a proven technology that can achieve significant aesthetic improvements in body contouring and shaping. However, treatments have been associated with adverse events such as minor burns of targeted tissues, which can result in scarring. The LipoControl™ System from Osyris Medical (Lille, France) is an LAL device powered by innovative technology offering the clinician a much higher control of energy delivered to the tissues, resulting in safer treatments.

At the heart of the LipoControl system is the latest generation 980 nm diode laser powered by patented Energy Mapping technology with motion sensing and Energy Memory features. This device shows an accurate and controlled on-screen amount of energy delivered to the tissues. Should the clinician apply too much energy to a targeted volume of tissue, the device will automatically shut off. Another major advantage of this novel technology is that it gives the physician precise control of the energy delivered to a specific volume of tissue with a real-time heating capability allowing for more uniform treatments.

According to Serge Mordon, Ph.D., director at INSERM 703, Lille University Hospital (Lille, France), the magnetic tracking system tells the physician in real-time the position of the cannula, allowing for the precise delivery of a specific amount of energy to a specific volume of tissue. "The system also measures the actual speed of the cannula, which in turn allows for a higher control of the power of the laser."

Heightened controls of energy delivery not only help avoid adverse events such as tissue burning with possible subsequent scarring, but may also decrease

the pain and discomfort that can be associated with other LAL devices.

"Compared to other techniques, the LipoControl device can result in more uniform treatments and outcomes in terms of heating the dermis and deeper tissues and liquefying the fat compartments," said Neil Sadick, M.D., of Sadick Dermatology in New York, New York, U.S.

Ultimately, the goal of laser lipolysis is to induce a rise in tissue temperature to destroy unwanted adipocytes. Many aesthetic physicians would agree that controlling the dose of energy applied inside the tissue during a laser lipolysis procedure can be challenging. "Failure to precisely control the dosage of emitted energy and apply it homogeneously through the targeted tissue can result in over treatment, which may lead to burns if working too close to the dermis, or under treatment, which may lead to less than optimal aesthetic outcomes," Dr. Sadick shared.

A rise in temperature is the result of energy input to the tissue. As Dr. Mordon explained, in order to increase the temperature of 1 cm<sup>3</sup> of fat by 1° C, you must deliver approximately 2.3 J/cm<sup>3</sup> to that specific volume. The difficulty is to determine the volume to be treated and be able to spread this energy homogeneously.

"Laser lipolysis techniques and clinicians' skills differ which can result in varying energy delivered to targeted tissue. LipoControl measures and controls the energy delivered in each cm<sup>3</sup> of targeted tissue, offering a uniform and precise energy delivery. This feature will also help to standardize the LAL technique and should open new treatment perspectives," Dr. Mordon advised.